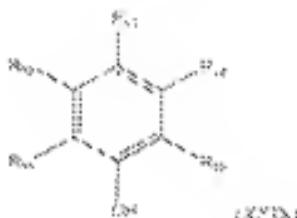


ABSTRACT OF THE DISCUSSION

A method of preparing a phenolic polymer intergrading, by protonating at least one hydroxyl group of a substituted or unsubstituted phenol represented by the general formula (VII):



wherein R₁₁, R₁₂, R₁₃, R₁₄ and R₁₅ are independently H, -C₆H₄-NH₂, -SO₂-H, a substituted or unsubstituted alkyl or aryl group, a substituted or unsubstituted alkoxyalkyl or aryloxyalkyl group, a substituted or unsubstituted alkoxy group or a substituted or unsubstituted carboxylic acid group, or R₁₁, R₁₂, R₁₃ or R₁₄, in combination with an adjacent R₁₅, R₁₆, R₁₇ or R₁₈, form a substituted or unsubstituted alkyleneoxy group, provided that at least one of R₁₁, R₁₂, R₁₃, R₁₄ and R₁₅ is a free hydroxyl group; 2-hydroxy-2-carboxylic acid or ester thereof, a substituted or unsubstituted alkyleneoxy group or a substituted or unsubstituted alkoxyalkoxy group, at least one of R₁₁, R₁₂, R₁₃ or R₁₄ is a hydroxyl group, and at least one of R₁₁, R₁₂, R₁₃, R₁₄ and R₁₅ is H, with a protecting group; wherein there is also one or more methoxyl hydroxyl groups; and by polymerizing the substituted or unsubstituted phenol, thereby obtaining the phenolic polymer.